



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

March 27, 2019

Edward Bockrath
FMC Corporation
c/o FMC Stine Research Center
P.O. Box 30
Newark, Delaware 19714-0030

Subject: Registration Review Label Mitigation for Thifensulfuron Methyl and Tribenuron-methyl
Product Name: FirstShot SG Burndown Herbicide with TotalSol Soluble Granules
Application Date: 12/18/17
EPA Registration Number: 279-9609
Decision Number: 545367

Dear Mr. Bockrath:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all of the information submitted with your application to support the Registration Review of the above referenced product in connection with the 22 Sulfonylurea (SU) Herbicides Interim Decision, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

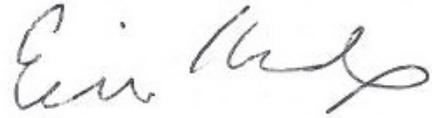
Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

A copy of your label stamped "Accepted" is enclosed. Products shipped after 12 months from the date of this amendment must bear the new revised label. Your release for shipment of the product bearing the amended label constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6.

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If you have any questions about this letter, please contact Erik Kraft by phone at 703-308-9358, or via email at kraft.erik@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Erik Kraft". The signature is fluid and cursive, with the first name "Erik" being more prominent than the last name "Kraft".

Erik Kraft, Product Manager 24
Fungicide and Herbicide Branch
Registration Division (7505P)
Office of Pesticide Programs

Enclosure

FIRSTSHOT[®]

SG

BURNDOWN HERBICIDE WITH TOTALSOL[®]
SOLUBLE GRANULES

THIFENSULFURON METHYL	GROUP	2	HERBICIDE
TRIBENURON METHYL	GROUP	2	HERBICIDE

Active Ingredients **By Weight**

Thifensulfuron-methyl	
Methyl 3-[[[(4-methoxy-6-methyl-1,3,5-triazin-2-yl) amino]carbonyl]amino]sulfonyl]-2-thiophenecarboxylate	25%
Tribenuron-methyl	
Methyl 2-[[[N-(4-methoxy-6-methyl-1,3,5-triazin-2-yl)methylamino]carbonyl]amino]sulfonyl]benzoate	25%

Other Ingredients 50%

TOTAL 100%

Contains 0.25 lb Thifensulfuron Methyl per pound

Contains 0.25 lb Tribenuron Methyl per pound

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EPA Est. No. _____

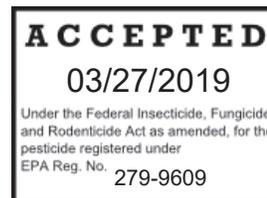
Nonrefillable Container

Refillable Container

Net: _____

OR

Net: _____



**KEEP OUT OF REACH OF CHILDREN
CAUTION**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

FIRST AID

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-331-3148 for emergency medical treatment information.

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION**

Avoid contact with skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. For medical emergencies involving this product, call toll free 1-800-331-3148.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical Resistant Gloves (including butyl rubber, natural rubber, neoprene rubber or nitrile rubber) ≥14 mls
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

USERS SHOULD: Wash hands after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Sold By



FMC Corporation
2929 Walnut Street
Philadelphia, PA 19104

ENVIRONMENTAL HAZARDS

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate.

Groundwater Advisory

This product has properties and characteristics associated with chemicals detected in groundwater. This product may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

Surface Water Advisory

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for several weeks or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of this product from runoff water and sediment. Runoff of this product will be greatly reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

Windblown Soil Particles Advisory

This product has the potential to move off-site due to wind erosion. Soils that are subject to wind erosion usually have a high silt and/or fine to very fine sand fractions and low organic matter content. Other factors which can affect the movement of windblown soil include the intensity and direction of prevailing winds, vegetative cover, site slope, rainfall, and drainage patterns. Avoid applying this product if prevailing local conditions may be expected to result in off-site movement.

Non-target Organism Advisory

This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated area. Protect the forage and habitat of non-target organisms by minimizing spray drift. For further guidance and instructions on how to minimize spray drift, refer to the Spray Drift Management section of this label.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, including plants, soil, or water, is:

Coveralls

Chemical Resistant Gloves (including butyl rubber, natural rubber, neoprene rubber or nitrile rubber) ≥14 mls

Shoes plus socks

FIRSTSHOT® SG burndown herbicide (with TOTALSOL® soluble granules), also referred to below as FIRSTSHOT SG herbicide, must be used in accordance with the directions for use on this label or as otherwise permitted by FIFRA. Always read the entire label including the Limitation of Warranty and Liability.

PRODUCT INFORMATION

FIRSTSHOT SG herbicide is a water soluble granule that is used for postemergence burndown weed control in the fallow period prior to planting. The best control is obtained when FIRSTSHOT SG herbicide is applied to young, actively growing weeds. Base rate selection on weed spectrum and infestation intensity, weed size at application, environmental conditions at and following treatment and tank mix partners.

FIRSTSHOT SG herbicide is noncorrosive, nonflammable, nonvolatile, and does not freeze. FIRSTSHOT SG herbicide must be completely dissolved in water and applied as a uniform broadcast spray.

PESTICIDE HANDLING

- Calibrate sprayers only with clean water away from the well site.
- Make scheduled checks of spray equipment.
- Ensure that all operation employees accurately measure pesticides.
- Mix only enough product for the job at hand.
- Avoid overfilling of spray tank.
- Dilute and agitate excess solution and apply at labeled rates or uses.
- Avoid storage of pesticides near well sites.
- When triple-rinsing the pesticide container, be sure to add the rinsate to the spray mix.

RESTRICTIONS

- Do not use in season on any crop. FIRSTSHOT SG herbicide is only registered as a burndown treatment prior to planting.
- Do not discharge excess material on the soil at a single spot in the field, grove, or mixing/loading station.
- Do not graze livestock in treated areas. In addition, do not feed forage or hay from treated areas to livestock (harvested straw may be used for bedding and/or feed).

Injury to or loss of adjacent desirable trees or vegetation may result from failure to observe the following:

- Do not apply, drain or flush equipment on or near desirable trees or other plants or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.
- Do not use on lawns, walks, driveways, or tennis courts. Prevent drift of spray to desirable plants.

PRECAUTIONS

- Dry, dusty field conditions may result in reduced control in wheel track areas.

Injury to or loss of adjacent desirable trees or vegetation may result from failure to observe the following:

- Take all necessary precautions to avoid all direct or indirect contact (including spray drift) with non-target plants or areas.
- Carefully observe all sprayer cleanup instructions both prior to and after using this product, as spray tank residue may damage crops other than wheat, barley, triticale or oat.

WEED RESISTANCE MANAGEMENT

FIRSTSHOT SG herbicide, which contains the active ingredients Thifensulfuron methyl and Tribenuron methyl is a group 2 herbicide based on the mode of action classification system of the Weed Science Society of America. Proactively implementing diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides is a best practice. A diversified weed management program may include the use of multiple herbicides with different sites of action and overlapping weed spectrum with or without tillage operations and/or other cultural practices. Research has demonstrated that using the labeled rate and directions for use is important to delay the selection for resistance. The continued effectiveness of this product depends on the successful implementation of a weed resistance management program.

To aid in the prevention of developing weeds resistant to this product, users should:

- Scout fields before application to ensure herbicides and rates will be appropriate for the weed species and weed sizes present.
- Start with a clean field, using either a burndown herbicide application or tillage.
- Control weeds early when they are relatively small (less than 4 inches).
- Apply full rates of FIRSTSHOT SG herbicide for the most difficult to control weed in the field at the specified time (correct weed size) to minimize weed escapes.
- Scout fields after application to detect weed escapes or shifts in control of weed species.
- Control weed escapes before they reproduce by seed or proliferate vegetatively.
- Report any incidence of non-performance of this product against a particular weed to your FMC representative, local retailer, or county extension agent.
- Contact your FMC representative, crop advisor, or extension agent to find out if suspected resistant weeds to these MOAs have been found in your region. Do not assume that each listed weed is being controlled by multiple sites of action. Products with multiple active ingredients are intended to broaden the spectrum of weeds that are controlled.

Some weeds may be controlled by only one of the active ingredient in this product.

- If resistance is suspected, treat weed escapes with an herbicide having a site of action other than Group 2 and/or use nonchemical methods to remove escapes, as practical, with the goal of preventing further seed production.
- Suspected herbicide-resistant weeds may be identified by these indicators:
 - Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
 - A spreading patch of non-controlled plants of a particular weed species; and
 - Surviving plants mixed with controlled individuals of the same species.

Additionally, users should follow as many of the following herbicide resistance management practices as is practical:

- Use a broad spectrum soil-applied herbicide with other sites of action as a foundation in a weed control program.
- Utilize sequential applications of herbicides with alternative sites of action.
- Rotate the use of this product with non-Group 2 herbicides.
- Avoid making more than two applications of FIRSTSHOT SG herbicide and any other Group 2 herbicides within a single growing season unless mixed with an herbicide with a different site of action with an overlapping spectrum for the difficult-to-control weeds.
- Incorporate non-chemical weed control practices, such as mechanical cultivation, crop rotation, cover crops and weed-free crop seeds, as part of an integrated weed control program.
- Use good agronomic principles that enhance crop development and crop competitiveness.
- Thoroughly clean plant residues from equipment before leaving fields suspected to contain resistant weeds.
- Manage weeds in and around fields, during and after harvest to reduce weed seed production.

INTEGRATED PEST MANAGEMENT

FMC encourages the use of Integrated Pest Management (IPM) programs to control pests. This product may be used as part of an Integrated Pest Management (IPM) program that can include biological, cultural, and genetic practices aimed at preventing economic pest damage. Base application of this product on IPM principles and practices including field scouting or other detection methods, correct target pest identification, population monitoring, and treating when target pest populations reach locally determined action thresholds. Consult your state cooperative extension service, professional consultants or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop systems in your area.

ENVIRONMENTAL CONDITIONS AND BIOLOGICAL ACTIVITY

FIRSTSHOT SG herbicide is absorbed primarily through the foliage of plants, rapidly inhibiting the growth of susceptible weeds. One to 3 weeks after application to weeds (2 to 5 weeks for wild garlic), leaves of susceptible plants appear chlorotic, and the growing point subsequently dies.

The herbicidal action of FIRSTSHOT SG herbicide may be affected from adverse environmental conditions (including extreme temperatures or moisture), abnormal soil conditions or cultural practices. In warm, moist conditions, the expression of herbicide symptoms is accelerated; in cold, dry conditions, expression of herbicide symptoms is delayed. In addition, weeds hardened-off by drought stress are less susceptible to FIRSTSHOT SG herbicide.

WEEDS CONTROLLED

FIRSTSHOT SG herbicide effectively controls the following weeds when used according to label directions:

Annual knawel	Marshelder
Annual sowthistle	Mayweed chamomile
Black mustard	Miners lettuce
Blue/Purple mustard	Narrowleaf lambsquarters
Broadleaf dock	Nightflowering catchfly
Bur buttercup	Pennsylvania smartweed
Bushy wallflower/ Treacle mustard	Pineappleweed
Carolina geranium	Prickly lettuce ‡
Clasping pepperweed	Prostrate knotweed
Coast fiddleneck	Prostrate pigweed
Common buckwheat	Redmaids
Common chickweed	Redroot pigweed
Common cocklebur *	Scentless chamomile/mayweed
Common groundsel	Shepherd's-purse
Common lambsquarters	Slimleaf lambsquarters
Common radish	Smallflower buttercup
Common ragweed *	Smallseed falseflax
Common sunflower	Stinking chickweed
Corn chamomile	Stinking mayweed/dogfennel
Corn spurry	Swinecress
Cowcockle	Tansymustard
Cress (mouse-ear)	Tarweed fiddleneck
Curly dock	Tumble/ Jim Hill mustard
False chamomile	Volunteer lentils
Field chickweed	Volunteer peas
Field pennycress	Volunteer sunflower
Filaree (redstem, Texas)	Wild chamomile
Flixweed	Wild garlic*
Green smartweed	Wild mustard
Henbit *	Wild radish*
Ladysthumb	
London rocket	

WEEDS PARTIALLY CONTROLLED**

FIRSTSHOT SG herbicide partially controls the following weeds when used according to label directions:

Catchweed bedstraw	Marestail*
Cutleaf eveningprimrose*	Nightshade (cutleaf, hairy)
Mallow (common, little)	Vetch* (common, hairy)

* See SPECIFIC WEED PROBLEMS for more information.

**Partial control: A visual reduction of weed population as well as a significant loss of vigor. For better results, use the highest directed rate of FIRSTSHOT SG herbicide per acre and include a tank mix partner including 2,4-D, a dicamba containing product, or a glyphosate containing product.

‡ Naturally occurring resistant biotypes of prickly lettuce, marestail and mayweed spp. are known to occur. See the Resistance section of this label for additional details.

USE RATE

Apply 0.5 to 0.8 oz FIRSTSHOT SG herbicide per acre as a burndown treatment to control emerged weeds prior to planting.

When applying 0.5 to 0.6 oz per acre, FIRSTSHOT SG herbicide must be used in combination with another registered burndown herbicide (see TANK MIXTURES).

Use the 0.8 ounce per acre rate when weed infestation is heavy or when application timing and environmental conditions are marginal.

Sequential treatments of FIRSTSHOT SG herbicide may be made provided the total amount of FIRSTSHOT SG herbicide does not exceed 1.0 ounce per acre or two applications per year. Allow at least 30 days between applications. For example, 0.5 ounce in the fall followed by 0.5 ounce in the spring.

RATE CONVERSION CHART FOR FIRSTSHOT SG HERBICIDE

Ounces FIRSTSHOT SG herbicide/A	Active Ingredient	Pounds FIRSTSHOT SG herbicide/A	Pounds Active Ingredient/A
0.5	Thifensulfuron methyl	0.0313	0.0078
	Tribenuron methyl	0.0313	0.0078
0.6	Thifensulfuron methyl	0.0375	0.0094
	Tribenuron methyl	0.0375	0.0094
0.8	Thifensulfuron methyl	0.05	0.0125
	Tribenuron methyl	0.05	0.0125
1.0	Thifensulfuron methyl	0.0625	0.0156
	Tribenuron methyl	0.0625	0.0156

RESTRICTIONS

When using FIRSTSHOT SG herbicide in tank mixes or sequential applications with other products containing thifensulfuron methyl and/or tribenuron methyl, do not exceed the following limits:

Use Area	Application Timing	Minimum Treatment Interval (Days)	Maximum Number of Applications per Year	Maximum Oz/A of Product per Single Application	Maximum Oz/A of Product per Year	Active Ingredient	Maximum AI Lbs/A per Single Application	Maximum AI Lbs/A per Year	Pre-Harvest Interval (Days)
Burndown prior to planting (all crops)	Apply as a burndown treatment to control emerged weeds prior to planting.	Minimum days prior to planting: Barley, rice, triticale and wheat - 0; Soybeans - 7; Cotton, field corn and grain sorghum -14; Other crops - 45 (see Crop Rotation Chart for more detail)	2	0.8	1.0	Thifensulfuron methyl	0.0125	0.0156	NA
						Tribenuron methyl	0.0125	0.0156	

SPRAY ADJUVANTS

Always include a spray adjuvant with applications of FIRSTSHOT SG herbicide. Glyphosate products differ in their adjuvant contents, see the manufacturer's surfactant specifications.

Consult your Ag dealer or applicator, local FMC fact sheets, technical bulletins, and service policies prior to using an adjuvant system. If another herbicide is tank mixed with FIRSTSHOT SG herbicide, select adjuvants authorized for use with both products. Products must contain only EPA-exempt ingredients (40CFR 1001).

Crop Oil Concentrate (COC) or Modified Seed Oil (MSO)

- Apply at 1% volume/volume (1 gal per 100 gal spray solution) or 2% volume/volume under arid conditions.
- Oil adjuvants must contain at least 80% high quality, petroleum (mineral) or modified vegetable seed oil with at least 15% surfactant emulsifiers.
- Combination adjuvant products may be used at doses that provide the required amount of NIS, COC, MSO and/or ammonium nitrogen fertilizer. Consult product literature for use rates and restrictions.

Nonionic Surfactant (NIS)

- Apply 0.25 to 0.50% volume/volume (2 pt to 4 pt per 100 gal of spray solution).
- Surfactant products must contain at least 60% nonionic surfactant with a hydrophilic/lipophilic balance (HLB) greater than 12.

Ammonium Nitrogen Fertilizer

In addition to a spray adjuvant, an ammonium nitrogen fertilizer may be used. Use 2 qt/acre of a high-quality urea ammonium nitrate (UAN), including 28%N or 32%N, or 2 lb/acre of a spray-grade ammonium sulfate (AMS). Use 4 qt/acre UAN or 4 lb/acre AMS under arid conditions.

TANK MIXTURES

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

FIRSTSHOT SG herbicide may be used as a pre-plant burndown treatment alone or tank mixed with one or more herbicides registered for pre-plant burndown, including 2,4-D ester, dicamba products, and glyphosate containing products including glufosinate and paraquat.

SPECIFIC TANK MIXTURES

FIRSTSHOT SG herbicide plus Glyphosate for control or suppression of additional weed species before planting rice in the states of Arkansas, Louisiana, Missouri, and Mississippi:

A tank mixture of FIRSTSHOT SG herbicide at 0.8 ounces per acre in combination with glyphosate may be applied for improved control of weeds prior to planting rice. Rice may be planted any time after the application of FIRSTSHOT SG herbicide with glyphosate, except on light textured soils, including sands, loamy sands and sandy loams and or on high pH soils (>7.9). On light textured soils and or high pH soils (>7.9), extend time to planting of rice by 7 additional days.

FIRSTSHOT SG herbicide plus glyphosate will provide control of alligatorweed and suppression‡ of juncus, spikerush, bull tongue (lanceleaf arrowhead), red ludwigia, narrowleaf aster, and hyssop.

The addition of a nonionic surfactant (NIS) at 0.25% to 0.5% v/v (1 to 2 quarts per 100 gallons of spray) to FIRSTSHOT SG herbicide plus glyphosate tank mix may improve weed control since glyphosate products differ in their adjuvant contents. Ammonium sulfate (AMS) may also be added to this tank mix if it is specified on the glyphosate label. See glyphosate label for specific surfactant and AMS directions.

Refer to the glyphosate label for further application information and use restrictions. Follow the label guidelines that are the most restrictive.

‡ Weed suppression is a reduction in weed competition (reduced population and/or vigor) as visually compared to an untreated area. The degree of suppression varies with the size of the weeds and the environmental conditions following treatment.

FIRSTSHOT SG herbicide plus Sharpen herbicide (Active Ingredient: Saflufenacil; EPA Reg. No. 7969-278) for control or suppression of weed species before planting soybeans in the states of Arkansas, Louisiana, and Mississippi:

A tank mixture of FIRSTSHOT SG herbicide at 0.5 ounces per acre in combination with Sharpen herbicide may be applied for improved control of weeds prior to planting soybeans.

Soybeans may be planted one day after the application of FIRSTSHOT SG herbicide plus Sharpen herbicide on all soils other than coarse soils (sand, loamy sand, sandy loam) and or soils with a high pH (>7.9). Refer to the FIRSTSHOT SG herbicide and Sharpen herbicide and any tank mix partner labels for information on weed species controlled adjuvant systems required, additional use directions, restrictions, rotational crop intervals and precautions. The most restrictive provision on any label shall apply.

FIRSTSHOT SG herbicide plus Command 3ME herbicide (Active Ingredient: Clomazone; EPA Reg. No. 279-3158) for ground and aerial application to control broadleaf weeds prior to planting rice in the state of Louisiana:

FIRSTSHOT SG herbicide is for the control of annual broadleaf weeds in a burndown application prior to planting rice. For ground and aerial application with Command 3ME herbicide, FIRSTSHOT SG herbicide can be applied with other registered preplant burndown products listed on the FIRSTSHOT SG herbicide or Command 3ME herbicide labels. Apply FIRSTSHOT SG herbicide as a postemergence treatment to young, actively growing weeds. See the FIRSTSHOT SG herbicide Federal label for complete application and weed size specifications and the Command 3ME herbicide Federal 24(c) label including the SPECIAL PRECAUTION FOR RICE. FIRSTSHOT SG herbicide may be applied as a preplant burndown at any time prior to planting rice.

Apply FIRSTSHOT SG herbicide at 0.5 to 0.8 ounces of product per acre. Refer to the tank mix partner labels for specific use rate instructions for each. Follow the most restrictive label directions. Refer to product labels for adjuvant use. Read and follow all manufacturer's label instructions for the companion herbicide. If those instructions conflict with this label, follow the most restrictive labeling (for example planting interval after application), or do not tank mix the herbicide with FIRSTSHOT SG herbicide.

SPECIFIC WEED PROBLEMS

Applications of FIRSTSHOT SG herbicide alone may not provide adequate control of certain problem weeds. Acceptable control of these species can be achieved by tankmixing FIRSTSHOT SG herbicide with one or more herbicides labeled for burndown applications.

Common cocklebur, common ragweed, cutleaf eveningprimrose, marestail, prickly lettuce, vetches (common, hairy), wild garlic, wild radish: For control use FIRSTSHOT SG herbicide at 0.6-0.8 ounce per acre in combination with 2,4-D ester or dicamba. The addition of glyphosate or paraquat to the above specified tankmixes will improve control of many species. If glyphosate-resistant marestail or common ragweed is known or suspected to be present, use the highest specified rate of dicamba or 2,4-D ester in glyphosate tankmixes.

Carolina geranium, henbit: For control apply FIRSTSHOT SG herbicide at 0.6-0.8 ounce per acre in combination with glyphosate or paraquat. The addition of 2,4-D ester or dicamba may improve control of heavy populations, stressed weeds, and larger weeds.

When preplant intervals for hormone products (dicamba and 2,4-D ester) preclude their use in FIRSTSHOT SG herbicide combinations for control of problem weeds, apply FIRSTSHOT SG herbicide at 0.6-0.8 ounce per acre tankmixed with glyphosate or paraquat to achieve control or suppression of these species.

CROP ROTATION

Labeled crops may be planted at specified time intervals following application of labeled rates of FIRSTSHOT SG herbicide. Use the time intervals listed below to determine the required time interval before planting.

Time Interval Before Planting*(days after treatment with FIRSTSHOT SG herbicide)

Crop	Days
Barley, Rice**, Triticale, and Wheat (including durum)	0
Soybeans	7†
Cotton, Field Corn, and Grain Sorghum	14
Peanuts	30
Any other crop	45

* Refer to individual product labels to determine rotational crop restrictions when tank mixtures are used.

**When FIRSTSHOT SG herbicide is applied at 0.5 oz/A the application may be made prior to or immediately after planting but prior to rice emergence. When FIRSTSHOT SG herbicide is applied at greater than 0.5 oz/A but less than or equal to 0.8 oz/A, rice may be planted immediately after this application, except on light textured soils, including sands, loamy sands and sandy loams and or on high pH soils (>7.9). On light textured soils and high pH soils (>7.9), extend time to planting of rice by 7 additional days.

†When FIRSTSHOT SG herbicide is applied at 0.5 oz/A the application may be made within 3 days after planting but prior to soybean emergence. Where FIRSTSHOT SG herbicide is used on light textured soils, including sands, loamy sands and sandy loams, extend time to planting by 7 additional days.

Where FIRSTSHOT SG herbicide is used on high pH soils (>7.9), extend time to planting by 7 additional days.

APPLICATION INFORMATION

PRODUCT MEASUREMENT

FIRSTSHOT SG herbicide is measured using the FIRSTSHOT SG herbicide volumetric measuring cylinder. The degree of accuracy of this cylinder varies by $\pm 7.5\%$. For more precise measurement, use scales calibrated in ounces.

MIXING INSTRUCTIONS

1. Fill the tank 1/4 to 1/3 full of water.
2. While agitating, add the required amount of FIRSTSHOT SG herbicide
3. Continue agitation until the FIRSTSHOT SG herbicide is fully dissolved, at least 5 minutes.
4. Once the FIRSTSHOT SG herbicide is fully dissolved, maintain agitation and continue filling tank with water.
5. As the tank is filling, add tank mix partners (if desired) then add the required volume of nonionic surfactant. Always add surfactant last. Do not use with spray additives that alter the pH of the spray solution below pH 5.0 or above pH 9.0, as rapid product degradation can occur. Spray solutions of pH 6.0-8.0 allow for optimum stability of FIRSTSHOT SG herbicide.
6. Dispersed tank mix partners can settle if the tank mixture is not continually agitated. If settling occurs, thoroughly re-agitate before using.
7. Apply FIRSTSHOT SG herbicide spray mixture within 24 hours of mixing to avoid product degradation.
8. If FIRSTSHOT SG herbicide and a tank mix partner are to be applied in multiple loads, fully dissolve the FIRSTSHOT SG herbicide in clean water either in the spray tank or a separate mixing tank prior to adding the tank mix partner.

GROUND APPLICATION

For optimum spray distribution and thorough coverage, use flat-fan or low-volume flood nozzles.

For flat-fan nozzles, use a spray volume of at least 5 gal per acre (GPA).

For flood nozzles on 30" spacings, use at least 10 GPA, flood nozzles no larger than TK10 (or the equivalent), and a pressure of at least 30 psi. For 40" nozzle spacings, use at least 13 GPA; for 60" spacings use at least 20 GPA. It is essential to overlap the nozzles 100% for all spacings.

"Raindrop RA" and air induction nozzles are not advised for FIRSTSHOT SG herbicide applications, as weed control performance may be reduced.

Use screens that are 50-mesh or larger.

AERIAL APPLICATION

Use nozzle types and arrangements that provide optimum spray distribution and maximum coverage at 5 GPA.

See the **Spray Drift Management** section of this label.

SPRAY EQUIPMENT

Be sure to calibrate air or ground equipment properly before application. Select a spray volume and delivery system that will ensure thorough coverage and a uniform spray pattern with minimum drift. Use higher spray volumes to obtain better coverage when crop canopy is dense. Avoid swath overlapping, and shut off spray booms while starting, turning, slowing, or stopping, to avoid injury to the crop.

For additional information on spray drift refer to Spray Drift Management section of label.

The spray equipment must be cleaned before FIRSTSHOT SG herbicide is sprayed. Follow the cleanup procedures specified on the labels of the previously applied products.

AT THE END OF THE DAY

It is advised that during periods when multiple loads of FIRSTSHOT SG herbicide are applied, at the end of each day of spraying the interior of the tank be rinsed with fresh water and then partially filled, and the boom and hoses flushed. This will prevent the buildup of dried pesticide deposits which can accumulate in the application equipment.

AFTER SPRAYING FIRSTSHOT SG HERBICIDE AND BEFORE SPRAYING CROPS

To avoid subsequent injury to desirable crops, thoroughly clean all mixing and spray equipment immediately following applications of FIRSTSHOT SG herbicide as follows:

1. Empty the tank and drain the sump completely.
2. Spray the tank walls with clean water using a minimum volume of 10% of the tank volume. Circulate the water through the lines, including all by-pass lines, for at least two minutes. Flush the boom well and empty the sprayer. Completely drain the sump.
3. Repeat step 2.
4. Remove the nozzles and screens and clean separately in a bucket containing water.

The rinsate solution may be applied in preplant application specified on this label. DO NOT exceed the maximum-labeled use rate. If cleaners are used, consult the cleaner label for rinsate disposal instructions. If no instructions are given, dispose of the rinsate on site or at an approved waste disposal facility.

Notes:

1. Always start with a clean spray tank.
2. Steam-cleaning aerial spray tanks facilitate the removal of any caked deposits.
3. When FIRSTSHOT SG herbicide is tank mixed with other pesticides, examine all cleanout procedures for each product and the most rigorous procedure must be followed.
4. In addition to this cleanout procedure, all pre-cleanout guidelines on subsequently applied products must be followed as per the individual labels.

MANDATORY SPRAY DRIFT

Ground Boom Applications:

- Apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy unless making a turf, pasture, or rangeland application, in which case applicators may apply with a nozzle height no more than 4 feet above the ground.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a Coarse or coarser droplet size (ASABE S572.1).
- For all other applications, applicators are required to use a Medium or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

Aerial Applications:

- Do not release spray at a height greater than 10 feet above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a Coarse or coarser droplet size (ASABE S572.1).
- For all other applications, applicators are required to use a Medium or coarser droplet size (ASABE S572.1).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use one-half swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

SPRAY DRIFT MANAGEMENT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.

BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

Controlling Droplet Size – Ground Boom

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

Controlling Droplet Size – Aircraft

- Adjust Nozzles - Follow nozzle manufacturers recommendations for setting up nozzles.
Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

BOOM HEIGHT – Ground Boom

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom should remain level with the crop and have minimal bounce.

RELEASE HEIGHT - Aircraft

Higher release heights increase the potential for spray drift. When applying aerially to crops, do not release spray at a height greater than 10 ft above the crop canopy, unless a greater application height is necessary for pilot safety.

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

WIND

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

Handheld Technology Applications:

- Take precautions to minimize spray drift.

DRIFT CONTROL ADDITIVES

Using product compatible drift control additives can reduce drift potential. When a drift control additive is used, read and carefully observe cautionary statements and all other information on the additive's label. If using an additive that increases viscosity, ensure that the nozzles and other application equipment will function properly with a viscous spray solution.

Preferred drift control additives have been certified by the Chemical Producers and Distributors Association (CPDA).

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage: Store product in original container only. Store in a cool, dry place.

Pesticide Disposal: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Container Handling: Refer to the Net Contents section of this product's labeling for the applicable "Nonrefillable Container" or "Refillable Container" designation.

Nonrefillable Plastic and Metal Containers (Capacity Equal to or Less Than 50 Pounds):

Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Plastic and Metal Containers (Capacity Greater Than 50 Pounds): Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Plastic and Metal Containers, e.g., Intermediate Bulk Containers [IBC] (Size or Shape Too Large to be Tipped, Rolled or Turned Upside Down): Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying the contents from this container into application equipment or mix tank and before final disposal using the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Paper or Plastic Bags, Fiber Sacks including Flexible Intermediate Bulk Containers (FIBC) or Fiber Drums With Liners: Nonrefillable container. Do not reuse or refill this container. Completely empty paper or plastic bag, fiber sack or drum liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer for recycling if available or dispose of empty paper or plastic bag, fiber sack or fiber drum and liner in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

Refillable Fiber Drums With Liners: Refillable container (fiber drum only). *Refilling Fiber Drum:* Refill this fiber drum with FIRSTSHOT SG herbicide containing thifensulfuron methyl and tribenuron methyl only. Do not reuse this fiber drum for any other purpose. Cleaning before refilling is the responsibility of the refiller. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. *Disposing of Fiber Drum and/or Liner:* Do not reuse this fiber drum for any other purpose other than refilling (see preceding). Cleaning the container (liner and/or fiber drum) before final disposal is the responsibility of the person disposing of the container. Offer the liner for recycling if available or dispose of liner in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner. To clean the fiber drum before final disposal, completely empty the fiber drum by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer the fiber drum for recycling if available or dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

All Other Refillable Containers: Refillable container. *Refilling Container:* Refill this container with FIRSTSHOT SG herbicide containing thifensulfuron methyl and tribenuron methyl only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn out threads and closure devices. If damage is found, do not use the container, contact FMC at the number below for instructions. Check for leaks after refilling and before transporting. If leaks are found, do not reuse or transport container, contact FMC at the number below for instructions. *Disposing of Container:* Do not reuse this container for any other purpose other than refilling (see preceding). Cleaning the container before final disposal is the responsibility of the person disposing of the container. To clean the container before final disposal, use the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Do not transport if this container is damaged or leaking. If the container is damaged, leaking or obsolete, or in the event of a major spill, fire or other emergency, contact CHEMTREC (Transportation and Spills) at 1-800-424-9300, day or night.

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